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**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/782,075	
	Filing Date	02/19/2004	
	First Named Inventor	Sean D. Monahan	
	Art Unit		
	Examiner Name		
Total Number of Pages in This Submission	>100	Attorney Docket Number	Mirus.030.16.6

ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please Identify below):
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Mark K. Johnson
Signature	
Date	01/05/2005

CERTIFICATE OF TRANSMISSION/MAILING

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Sean D. Monahan,)
Vladimir G. Budker, Lisa Nader,)
Vladimir Subbotin, Jon A. Wolff)
Serial No.: 10/782,075)
Filed: 02/19/2004)
Group Art Unit:)

For: Covalent Modification of RNA for *In Vitro* and *In Vivo* Delivery

INFORMATIONAL STATEMENT

Commissioner of Patents
P.O. BOX 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. 1.56, applicant hereby calls to the attention of the Patent and Trademark Office the publications listed on the attached PTO 1449. This information statement supplements the previously filed information statement.

US patent


<u>Patent No.</u>	<u>Applicant</u>	<u>Issue date</u>
6,262,252	Wolff JA et al.	07/17/2001
5,962,675	Beigelman L et al.	10/05/1999
6,541,450	Beigelman L et al.	09/17/2002
6,159,951	Karpeisky A et al.	12/12/2000

REFERENCES CITED

1. Amarzguioui M et al. "Tolerance for mutation and chemical modifications in a siRNA." *Nucleic Acid Res.* 2003 Vol. 31 No. 2 pp. 589-595.
2. Chiu YL et al. "RNAi in human cells: basic structural and functional features of small interfering RNA." *Molecular Cell* 2002 Vol 10 No. 3 pp. 549-561.
3. Dinand E et al. "Competitive reactions during amine addition to cis-aconityl anhydride." *Australian Journal of Chemistry*; 2002 Vol. 55 No. 6-7 pp. 467-474.
4. Duxbury MS et al. "RNA interference: a practical approach." *J Surgical Research* 2004 Vol 117 No. 2 pp. 339-344.
5. Greene TW et al. "Protecting Groups in Organic Synthesis 3rd Ed.", 1999 John Wiley and Sons, Inc, New York, pp. 112-145, 600-601.
6. Hamada, M. "Effects on RNA Interference in Gene Expression (RNAi) in Cultured Mammalian Cells of Mismatches and the Introduction of Chemical Modifications at the 3'-Ends of siRNAs." *Antisense and Nucleic Acid Drug Development* 2002 Vol. 12 pp. 301-309.
7. Hermanson GT. "Bioconjugate techniques." 1996 New York, Academic Press pp 128-129.
8. Micura R "Small interfering RNAs and their chemical synthesis." *Angew Chem Int Ed Engl* 2002 Vol 41 No. 13 pp. 2265-2269.
9. Mittal V "Improving the efficiency of RNA interference in mammals." *Nature Review Genetics* 2004 Vol. 5 No. 5 pp. 355-365.
10. Naganawa A et al. "Synthetic Studies on Tautomycin Synthesis of 2,3-Disubstituted Maleic-Anhydride Segment." *Tetrahedron*; 1994 Vol. 50 No. 30 pp. 8969-8982.
11. Reddy JA et al. "Enhanced folate receptor mediated gene therapy using a novel pH-sensitive lipid formulation." *J Control Release.* 2000 Vol. 64 No. 1-3 pp. 27-37.
12. Rozema DB et al. "Endosomolysis by masking of a membrane-active agent (EMMA) for cytoplasmic release of macromolecules." *Bioconjug Chem.* 2003 Vol. 14 No. 1 pp. 51-57.
13. Zhang G et al. "High levels of foreign gene expression in hepatocytes after tail vein injections of naked plasmid DNA." *Hum Gene Ther.* 1999 Vol. 10 No. 10 pp. 1735-1737.

Applicant respectfully requests that these publications be expressly considered during the prosecution of this application and made of record herein and appear among the 'References Cited' on any patent to issue herefrom.

Respectfully submitted,



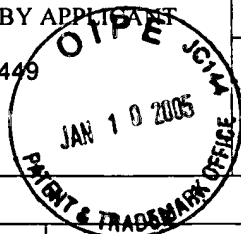
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Kirk Ekena

INFORMATION DISCLOSURE STATEMENT BY APPLICANT FORM PTO-1449	Attorney Docket No.: Mirus.030.16.6	Serial No.: 10/782,075
	Applicant: Sean D. Monahan, Vladimir G. Budker, Lisa Nader, Vladimir Subbotin, Jon A. Wolff	Group:
	Examiner:	



U.S. PATENT DOCUMENTS

Exmnr Intl	Seq	Patent Number	Issue Date	Patentee	Class	Sub Class	Filing Date
		6,262,252	07/17/2001	Wolff JA et al.	536	25.32	12/02/1997
		5,962,675	10/05/1999	Beigelman L et al.	536	27.11	12/23/1996
		6,541,450	09/17/2002	Beigelman L et al.	435	6	03/13/2001
		6,159,951	12/12/2000	Karpeisky A et al.	514	45	12/02/1997

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		Document Number	Publication Date	Country or Patent Office	Class	Sub Class	Transl.	
							yes	no

OTHER DOCUMENTS (Including Author, Title, Date Pertinent Pages, etc.)

		Amarzguioui M et al. "Tolerance for mutation and chemical modifications in a siRNA." Nucleic Acid Res. 2003 Vol. 31 No. 2 pp. 589-595.
		Chiu YL et al. "RNAi in human cells: basic structural and functional features of small interfering RNA." Molecular Cell 2002 Vol 10 No. 3 pp. 549-561.
		Dinand E et al. "Competitive reactions during amine addition to cis-aconityl anhydride." Australian Journal of Chemistry; 2002 Vol. 55 No. 6-7 pp. 467-474.
		Duxbury MS et al. "RNA interference: a practical approach." J Surgical Research 2004 Vol 117 No. 2 pp. 339-344.
		Greene TW et al. "Protecting Groups in Organic Synthesis 3 rd Ed.", 1999 John Wiley and Sons, Inc, New York, pp. 112-145, 600-601.
		Hamada, M. "Effects on RNA Interference in Gene Expression (RNAi) in Cultured Mammalian Cells of Mismatches and the Introduction of Chemical Modifications at the 3'-Ends of siRNAs." Antisense and Nucleic Acid Drug Development 2002 Vol. 12 pp. 301-309.
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		Micura R "Small interfering RNAs and their chemical synthesis." Angew Chem Int Ed Engl 2002 Vol 41 No. 13 pp. 2265-2269.
		Mittal V "Improving the efficiency of RNA interference in mammals." Nature Review Genetics 2004 Vol. 5 No. 5 pp. 355-365.
		Naganawa A et al. "Synthetic Studies on Tautomycin Synthesis of 2,3-Disubstituted Maleic-Anhydride Segment." Tetrahedron; 1994 Vol. 50 No. 30 pp. 8969-8982.
		Reddy JA et al. "Enhanced folate receptor mediated gene therapy using a novel pH-sensitive lipid formulation." J Control Release. 2000 Vol. 64 No. 1-3 pp. 27-37.
		Rozema DB et al. "Endosomolysis by masking of a membrane-active agent (EMMA) for cytoplasmic release of macromolecules." Bioconjug Chem. 2003 Vol. 14 No. 1 pp. 51-57.
		Zhang G et al. "High levels of foreign gene expression in hepatocytes after tail vein injections of naked plasmid DNA." Hum Gene Ther. 1999 Vol. 10 No. 10 pp. 1735-1737.

Examiner:	Date Considered:
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